

Name _____
Period _____ Date _____

Reaction Rates, Endo and Exothermic Reactions

Kinetic energy-

Rate of reaction-

Collision theory-

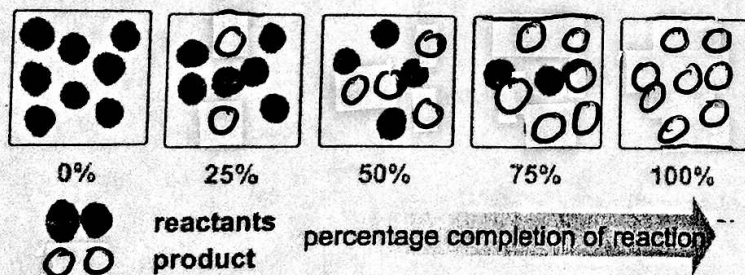
Activation energy-

Anything that _____ the number of successful collisions between reactant particles will _____ up a reaction. These things include:

- Increased _____
- _____ of dissolved reactants
- Increased _____ of solid reactants
- Use of _____

Reactions do not proceed at a steady rate. They start off at a certain speed, then get slower and slower until they stop.

This reduces the frequency of collisions between particles and so the reaction slows down.

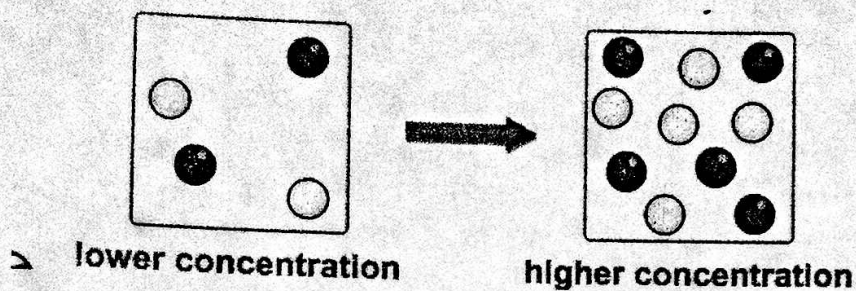


Measuring the rate of a reaction means measuring:

Temperature:

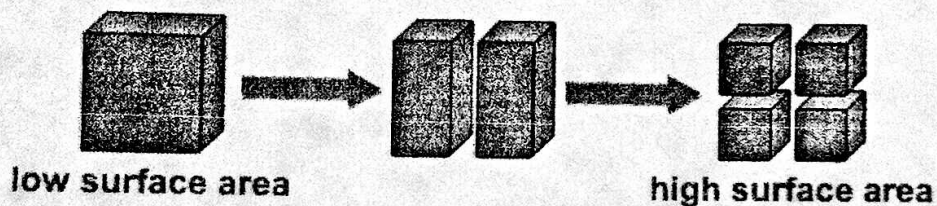
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Concentration:



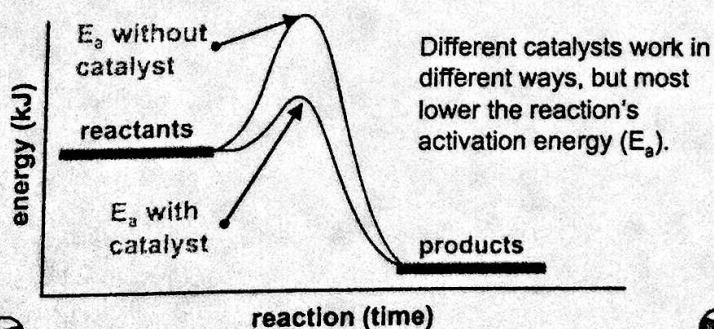
Surface Area:

If the solid is split into several pieces, the surface area increases. What effect will this have on rate of reaction?



The _____ the pieces, the _____ the surface area. This means more collisions and a greater chance of reaction.

Catalysts:



Why are catalysts so important in industry??

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Period ____ Date _____

Reaction Rates, Endo and Exothermic Reactions

Energy in reactions

All chemical reactions involve bond breaking and bond forming

To Break Bonds-

When bonds are formed-

Chemical reactions are accompanied by a _____ in energy, mainly in the form of _____

Exothermic:

Endothermic:

The law of conservation of energy:

	Endothermic	Exothermic
Description	absorb energy	
Clues		burning, exploding, freezing, condensing, sound released, makes surroundings warmer
Examples	water boiling, person sweating, ice melting	

Temperature:

Heat:

Thermal energy: